

THE FIRST RECORD FOR *BOTHYNOTUS PILOSUS* (BOHEMAN)  
(HEMIPTERA; MIRIDAE) IN THE NEARCTIC REGION

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*Abstract.*—The mirid species *Bothynotus pilosus* (Boheman) is reported from the Nearctic Region for the first time. This species, formerly known only from the Palearctic Region is recorded from Yukon and British Columbia. It is considered a natural Beringian element.

*Key Words:* Heteroptera, Miridae, *Bothynotus pilosus*, Nearctic Region

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During a study of the Heteroptera of the Yukon, the deraeocorine mirid *Bothynotus pilosus* (Boheman) was collected in three localities. It has also been found in one locality in northern British Columbia. The distribution suggests that this species is a natural Beringian element in the Nearctic fauna, and not an introduced species.

Male and female of the species are redescribed and illustrated, and notes given to distinguish it from other members of the genus in the New World.

*Bothynotus pilosus* (Boheman)

*Phytocoris pilosus* Boheman 1852: 68.

*Capsus fairmairii* Signoret 1852: 542. Syn. by Reuter 1873: 8.

*Capsus horridus* Mulsant and Rey 1852: 132. Syn. by Reuter 1875: 91.

*Bothynotus minki* Fieber 1864: 77. Syn. by Puton 1873: 24.

*Bothynotus kiritschenkoi* Lindberg 1934: 20. Syn. by Josifov and Kerzhner 1972: 152.

Redescription (measurements for mean and range in mm; range in parentheses).—*Macropterous male* (Fig. 1): Oblong, thickly clothed with more or less erect, long, brown setae. Head, pronotum (including

collar and calli), scutellum and thoracic venter black and shiny; head posteriorly and ventrally sometimes reddish. Antennae brown; rostrum pale brown with tip almost black. Hemelytra with corium uniform brown; cuneus dark brown; membrane dusky brown. Legs pale brown, with femora often yellowish; apex of tibiae and whole of tarsi dark brown. Abdominal venter pale to dark brown.

Head smooth and shiny; head width 0.89 (0.83–0.95), vertex width 0.53 (0.50–0.55); first antennal segment about  $\frac{3}{4}$  width of vertex; second antennal segment cylindrical and not incrassate, distinctly longer than head width; third and fourth antennal segments much thinner than second, combined length of third and fourth segments subequal to or slightly longer than second; all antennal segments with both short and long setae, shorter setae dense, oblique and about as long as width of second antennal segment, longer setae more scattered, more erect and over twice as long as width of second antennal segment; antennal measurements I 0.43 (0.40–0.45); II 1.17 (1.00–1.27); III 0.63 (0.53–0.70); IV 0.48 (0.43–0.57); rostrum reaching to middle coxae, length 1.16 (1.13–1.20).

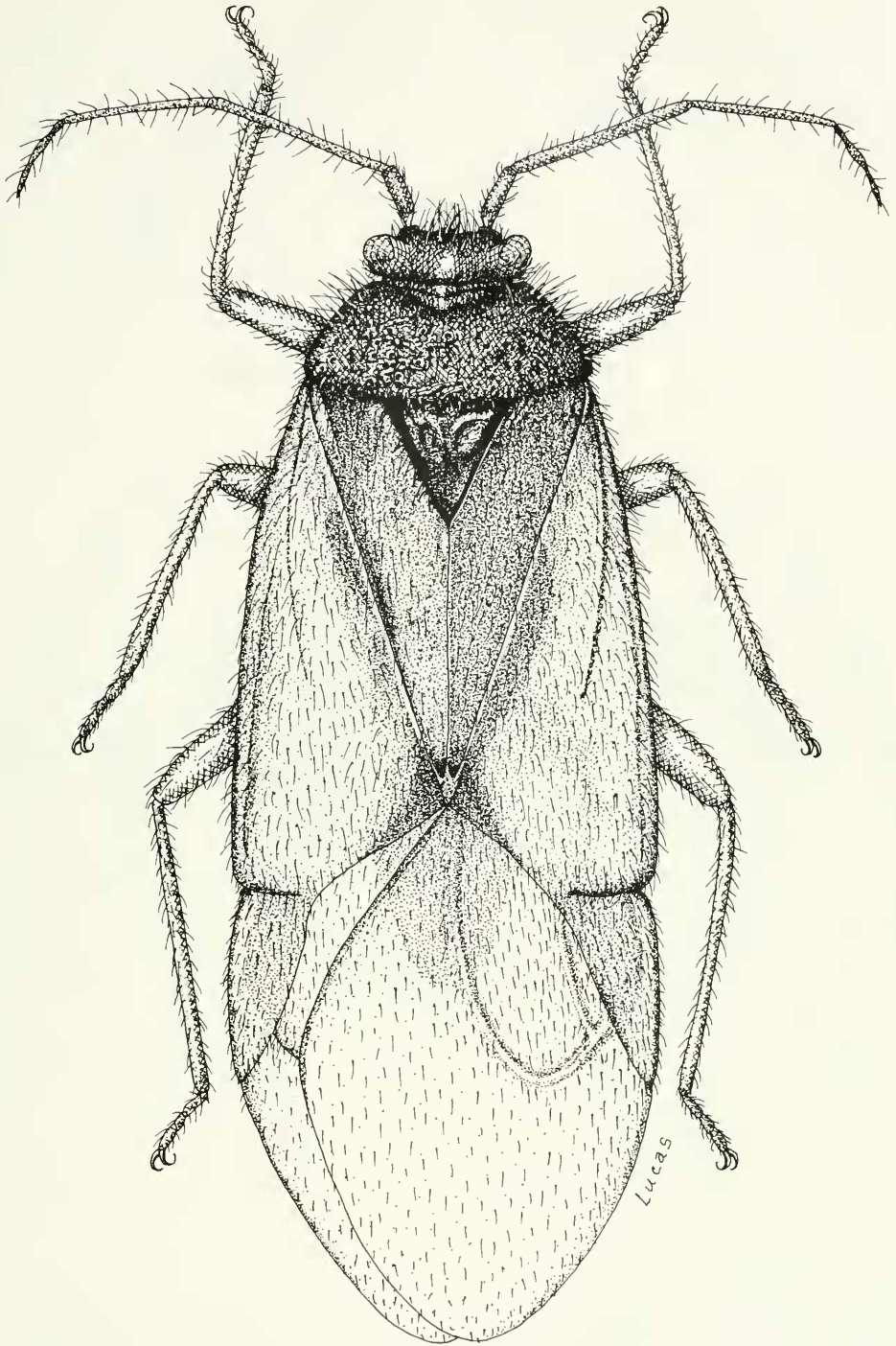


Fig. 1. *Bothynotus pilosus*, male.

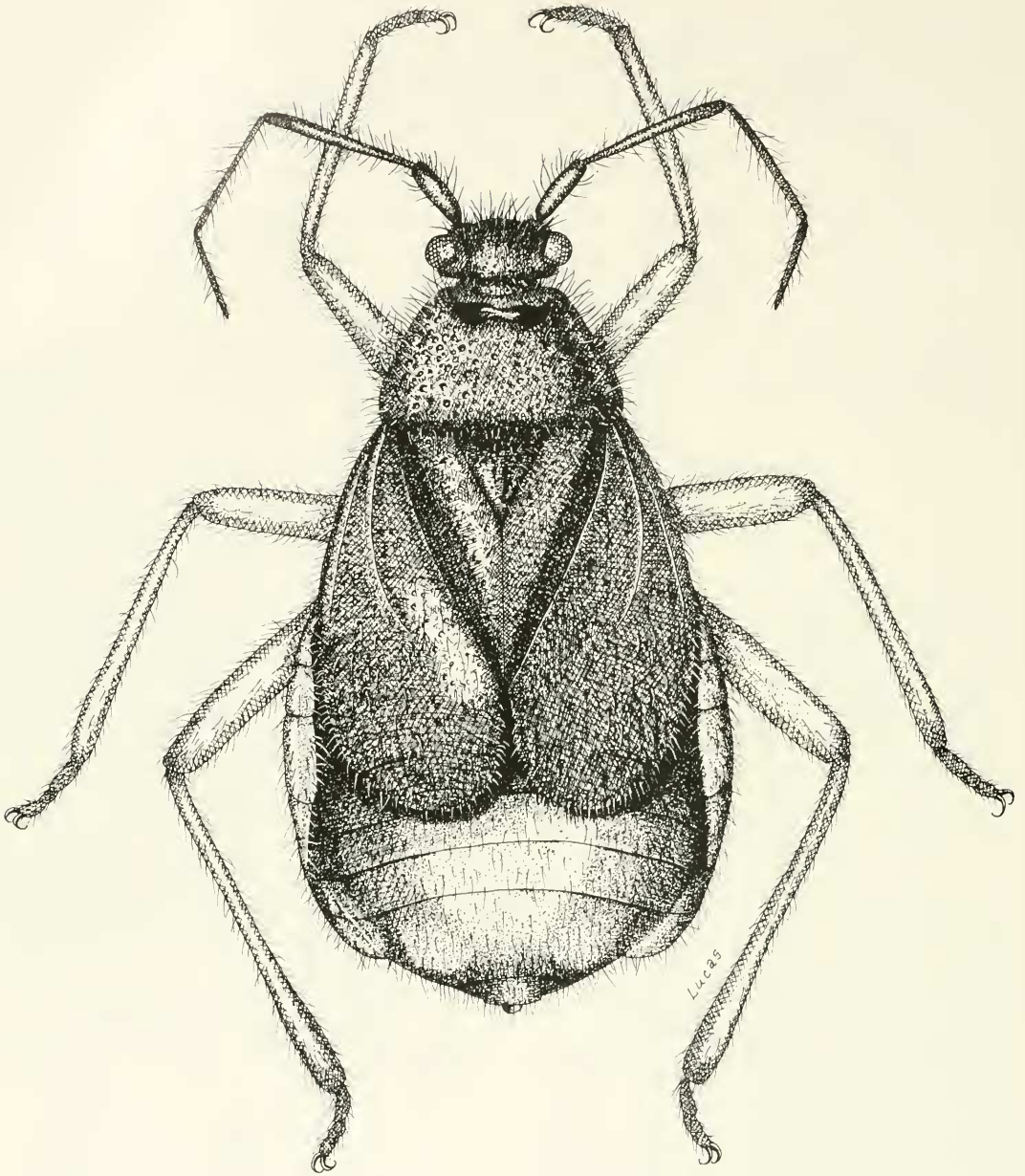


Fig. 2. *Bothynotus pilosus*, female.

Pronotum distinctly punctate; calli smooth and sunken; pronotal length 0.98 (0.87–1.03), pronotal width 1.61 (1.37–1.77), 1.2–1.6 $\times$  greater than length of second antennal segment. Scutellum shiny, transversely wrinkled and appearing some-

what swollen. Meso- and metapleura smooth and shiny. Corium and clavus shiny and appearing roughened, but not distinctly punctate; membrane shiny and reticulately wrinkled; hemelytra extending well beyond end of body, apex of cuneus reaching be-

yond end of abdomen. Tibiae with shorter oblique setae equal to width of tibia, and longer, more erect setae much longer than width of tibia. Total length 5.70 (5.30–6.10).

*Brachypterosus female* (Fig. 2): Oval, thickly clothed with long, erect, brown setae. Body both above and below, including hemelytra, collar and calli, shiny black; head posteriorly and ventrally distinctly red; antennae brown, with first segment except extreme base and apex pale yellow. Legs brown with femora and tibiae pale yellow.

Structured as for male, except as follows: head width 0.99 (0.97–1.00), vertex width 0.59 (0.57–0.63); antennal measurements I 0.44 (0.43–0.45); II 1.05 (1.00–1.13); III 0.67 (0.63–0.70); IV 0.51 (0.50–0.53); rostral length 1.32 (1.30–1.33).

Pronotum closely and coarsely punctate; pronotal length 0.86 (0.77–0.92), pronotal width 1.57 (1.50–1.67). Scutellum transversely wrinkled, with raised central longitudinal line; meso- and metapleura transversely wrinkled. Hemelytra lacking membrane, and attaining tergum IV; costal margin of corium strongly convex throughout; surface of corium, clavus and cuneus coarsely roughened, but not distinctly punctate. Total length 4.40 (3.80–4.80).

*North American material examined:* 1 ♂, BRITISH COLUMBIA, Summit Lk., 16.viii.1982 (L. A. Kelton); 1 ♂, YUKON, mi 51, Dempster Hwy., 18–27.vii.1973 (G. and D. M. Wood); 1 ♂, YUKON, Klondike R., Dempster Corner, 1 km W, 63°59'N 138°48'W, 20.vii.1982 (G. G. E. Scudder); 7 ♂ 5 ♀, YUKON, Old Crow, in root mats of *Polemonium pulcherrimum* Hook., 14.vii.1983 (S. G. Cannings); 1 ♀, YUKON, Old Crow, fall trap, S-facing *Artemisia* slope, 4–19.vii.1983 (S. G. Cannings); 1 ♂, YUKON, Old Crow, pitfall trap, boreal forest clearing, 21–26.vii.1984 (S. G. Cannings). In the Canadian National Collection (CNC), Ottawa, ON; Spencer Entomological Museum, University of British Columbia, Vancouver, BC; and Department of Entomology, Oregon State University, Corvallis, OR.

*Discussion:* The above specimens were compared with material determined as this species by H. Lindberg in 1958 with data: AL. Eckero Torp, 14.vii.1943 (H. Lindberg) [CNC]. Dissection of the male genitalia by M. D. Schwarz showed no noticeable differences.

*Bothynotus pilosus* will key to complete 9 in the key to the New World species of *Bothynotus* Fieber by Henry (1979). Like *B. barberi* Knight, the calli in *B. pilosus* appear sunken into the pronotum. However, the pronotal collar and calli are fuscous in *B. pilosus* and not pale orange as in *B. barberi*. The male in *B. pilosus* with an average total length of 5.70 mm is also much larger than *B. barberi* with length 3.44 mm. *Bothynotus pilosus* with black collar and calli, with black procoxal cleft, and head anteriorly black, is clearly distinct from both *B. floridanus* Henry and *B. mexicanus* Henry.

*Bothynotus pilosus* was reported by Carvalho (1957) from Austria, Belgium, Corfu, Finland, France, Great Britain, Germany, Greece, Hungary, Italy, Netherlands, Russia, Scandinavia, and Switzerland. Stichel (1956) also listed Czechoslovakia and Jugoslavia, and Josifov and Kerzhner (1972) added Korea.

Stichel (1956) reported the species from *Pinus sylvestris* L. and *Picea excelsior* Lk., but Woodroffe (1970) considered that moss is the primary habitat of this species, at least in Scotland, where he collected both adults and larvae in the moss *Hypnum cupressiforme* Hedw. The fact that *B. pilosus* in the Yukon was collected in root mats of *Polemonium pulcherimum* (Polemoniaceae), and also in pitfall traps, confirms that the members of the genus *Bothynotus* are largely ground-dwelling as suggested by Henry (1979). However, *B. pilosus* was also taken by sweeping in the Yukon. Southwood and Leston (1959) also report that this species can often be collected by sweeping in the evenings in the British Isles.

Southwood and Leston (1959) observed that the species overwinters in the egg stage,

and that adults occur from the last weeks in June until early October in Britain. All Nearctic specimens were collected in July and August, so the life cycle may be the same in the New World.

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